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Eliminating the "Defect" in Design Strict Products Liability Theory

by JOHN L. DIAMOND*

Since the concept of strict products liability was introduced by Justice Traynor in *Greenman v. Yuba Power Products, Inc.*,[1] courts have struggled to define what standards should govern imposition of such liability. In cases alleging improper design, the struggle has centered on the definition of "defective" design.[2] The varied responses stem in part from continued judicial attempts to incorporate warranty and negligence theories into purported strict liability standards.[3] This mixed tradition is reflected in section 402A of the Restatement (Second) of Torts which defines "defect" using both the negligence concept of unreasonably dangerous defect and the warranty standard of the ordinary consumer's expectations.[4]

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1. 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963).

2. Strict products liability has been applied by courts only upon a showing that the product was sold in a "defective condition." *See* RESTATEMENT (SECOND) OF TORTS § 402A comment g (1965) [hereinafter cited as RESTATEMENT 2d]. Dean Prosser stated it simply: "There must be something wrong with the product." W PROSSER, HANDBOOK OF THE LAW OF TORTS 659 (4th ed. 1971).

Under strict products liability theory, liability is imposed for physical harm caused by a defective product even if "the seller has exercised all possible care in the preparation and sale of his product." RESTATEMENT 2d, *supra*, § 402A. Strict products liability is to be distinguished from traditional strict liability, which is imposed upon "[o]ne who carries on an abnormally dangerous activity although he has exercised the utmost care to prevent the harm." *Id.* § 519(a). Liability "is limited to the kind of harm, the possibility of which makes the activity abnormally dangerous." *Id.* § 519(2). Thus, in strict products liability cases the focus is on the defective condition of the product, while in traditional strict liability the focus is on the activity engaged in by the defendant.

3. *See infra* notes 38-43 & accompanying text.

4. RESTATEMENT 2d, *supra* note 2, § 402A provides:

This Article examines the Restatement's attempt to formulate a theory of design products liability based on the concept of "defective design" and concludes that a definition of "defect" in terms of consumer expectations is so ambiguous as to virtually beg the question. Alternative responses to the Restatement standard are examined and found either indistinguishable from negligence theory or lacking a valid policy rationale.

The ambiguities and uncertainties engendered by the conflicting standards in design cases are a result of courts' attempts to define strict products liability in terms of "defective design." So long as liability depends on a determination of defectiveness, courts must concentrate on the issue of what constitutes a design defect, a task that has proved persistently difficult.[5]

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(1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if

(a) the seller is engaged in the business of selling such a product, and

(b) it is expected to and does reach the user or consumer without substantial change in the condition in which it was sold.

(2) The rule stated in Subsection (1) applies although

(a) the seller has exercised all possible care in the preparation and sale of his product, and

(b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.

The term "unreasonably dangerous" is defined as "dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to its characteristics." *Id.*, comment i. It is further noted that "[t]here is nothing in this Section which would prevent any court from treating the rule stated as a matter of "warranty" to the user or consumer. But if this is done, it should be recognized and understood that the "warranty" is a very different kind of warranty from those usually found in the sale of goods, and that it is not subject to the various contract rules which have grown up to surround such sales." *Id.*, comment m.

5. *See infra* notes 38-44 & accompanying text.

Design defects should be distinguished from manufacturing defects. As Professor Birnbaum observed: "The problems of defining defect are further complicated because the same linguistic formulation is used to describe two entirely distinct factual clusters. The term defect is used to apply to product flaws that result from unintentional mishaps in manufacturing as well as to flaws that arise from intentional design decisions. In the case of a manufacturing defect, the meaning of defect creates no difficulty: the product at issue may be evaluated against the manufacturer's own production standards, as manifested by other like products that roll off the assembly line. Conscious design defect cases, however, provide no such simple test. Plaintiff is attacking the intended design itself, arguing that the design created unreasonable risks of harm. In attacking the product's design, the plaintiff is not impugning the manufacturer's product so much as the manufacturer's choice of design." Birnbaum, *Unmasking the Test for Design Defect: From Negligence [to Warranty] to Strict Liability to Negligence*, 33 VAND. L. REV. 593 (1980). *See* Henderson, *Judicial Review of Manufacturers' Conscious Design Choices: The Limits of Adjudication*, 73 COLUM. L. REV. 1531 (1973); Traynor, *The Ways and Meanings of Defective Products and Strict Liability*, 32

It is submitted that rather than imposing strict liability for so-called design defects, application of strict liability in the traditional sense would provide a more workable standard in products liability cases.[6]

Such an approach would provide compensation for many injured consumers and at the same time assure that the manufacturer and supplier of a product would be forced to pay only for injuries which in a sense are statistically foreseeable. As a result of the imposition of traditional strict liability, manufacturers and suppliers would include compensation for injury as a cost of doing business. Such a standard would encourage proper insurance coverage and encourage safety measures and responsible marketing.

At the very least, traditional strict liability should apply not only to those engaging in "abnormally dangerous" activities, as defined by the Restatement,[7] but also to those manufacturers and suppliers of dangerous products which substantially contribute to making such activities abnormally dangerous.

It is arguable that traditional strict liability also should be extended to products not associated with abnormally dangerous activities, just as it can be argued that additional non-abnormally dangerous activities associated with particular products should be subject to strict liability. It is the dividing line between negligence and strict liability that should be the focus of debate, however, and not what is or is not a design defect.

The Origins of Products Liability Theory

Since Justice Cardozo's opinion in *MacPherson v. Buick Motor Co.*,[8] a succession of leading decisions has given consumers substantial remedies against manufacturers and distributors of mass produced goods.[9] In *MacPherson*, the New York Court of Appeals abolished the requirement of privity which had precluded most consumers from maintaining negligence claims against the manufacturers of defective

TENN. L. REV. 363 (1965); Wade, *On Product "Design Defects" and Their Actionability*, 33 VAND. L. REV. 551 (1980).

6. For the distinction between strict products liability and traditional strict liability, see *supra* note 2. Negligence in the manufacturing or designing of a product should, of course, remain an alternative basis of liability. *See infra* notes 12-13 & accompanying text.

7. *See* RESTATEMENT 2d, *supra* note 2, §§ 519-20.

8. 217 N.Y. 382, 111 N.E. 1050 (1916).

9. *See* Prosser, *The Assault Upon the Citadel*, 69 YALE L.J. 1099 (1960) [hereinafter cited as Prosser, *Assault*]; Prosser, *The Fall of the Citadel*, 50 MINN. L. REV. 791 (1966) [hereinafter cited as Prosser, *Fall*]. *See also infra* notes 10, 14, 16, 23 & accompanying text.

products.[10] As a result, consumers, as well as bystanders in many jurisdictions, are now free to prove that the manufacturer either negligently designed or manufactured a product that was a proximate cause of personal or property injury.[11] Negligence, especially in conjunction with res ipsa loquitur,[12] remains a basic remedy for those injured by defective products.[13]

Warranty theory also was used as a basis of products liability. In the leading case of *Baxter v. Ford Motor Co.*,[14] the court recognized that express warranties can give rise to liability when the product fails to perform as promised. Actions based on express warranties do not require a showing of negligence and may compensate for economic injury as well as for personal or property injuries.[15]

In *Henningsen v. Bloomfield Motors, Inc.*,[16] the New Jersey Supreme Court articulated a concept of implied warranty of merchantibility and fitness borrowed from commercial code provisions. Unlike the commercial codes, however, *Henningsen* did not require privity,[17] which would have restricted the use of implied warranties to the initial buyer (often the product's distributor).[18] *Henningsen* also did not allow other typical commercial statutory provisions such as general disclaimers and notice of claim requirements which can preclude liability.[19]

Other courts also judicially altered commercial code provisions,[20] in effect establishing a special set of rules for consumers suffering per-

10. 217 N.Y. at 391, 111 N.E. at 1053.

11. *See, e.g.*, Elmore v. American Motors Corp., 70 Cal. 2d 578, 451 P.2d 84, 75 Cal. Rptr. 652 (1969); Giberson v. Ford Motor Co., 504 S.W.2d 8 (Mo. 1974).

12. The doctrine of res ipsa loquitur permits negligence to be inferred from certain circumstances in which it is more likely than not that the injury resulted from negligent behavior, but no direct evidence of negligence can be produced. *See generally* RESTATEMENT 2d, *supra* note 2, § 328D.

13. *See, e.g.*, Montez v. Ford Motor Co., 101 Cal. App. 3d 315, 161 Cal. Rptr. 578 (1980); Jiminez v. Sears, Roebuck & Co., 4 Cal. 3d 379, 482 P.2d 681, 93 Cal. Rptr. 769 (1971); *see also* Noel, *Manufacturers' Liability for Negligence*, 33 TENN. L. REV. 444 (1966); Rheingold, *The Expanding Liability of the Product Supplier: A Primer*, 2 HOFSTRA L. REV. 521, 531 (1974).

14. 168 Wash. 456, 12 P.2d 409 (1932).

15. *See, e.g.*, Seely v. White Motor Co., 63 Cal. 2d 9, 403 P.2d 145, 45 Cal. Rptr. 17 (1965); Randall v. Goodrich-Gamble Co., 238 Minn. 10, 54 N.W.2d 769 (1952); Randy Knitwear, Inc. v. American Cynamid Co., 1 N.Y.2d 5, 181 N.E.2d 399, 266 N.Y.S.2d 363 (1962).

16. 32 N.J. 358, 161 A.2d 69 (1960).

17. *Id.*

18. *Id.*

19. *See* Prosser, *Assault, supra* note 9.

20. *See, e.g.*, Wright Bachman, Inc. v. Hodnott, 235 Ind. 307, 133 N.E.2d 713 (1956); Silverstein v. R.H. Macy & Co., 26 A.D. 5, 40 N.Y.S.2d 916 (1943).

sonal and property injuries caused by defective products.[21] This judicially created theory of implied warranty allowed consumers to sue for damages resulting from products that failed to meet consumer expectations of fitness, without requiring them to establish negligence or the existence of an express warranty.[22]

The Move Toward Strict Products Liability

In 1963 the California Supreme Court in *Greenman v. Yuba Power Products, Inc.*[23] established a theory of "strict liability" for product defects. Rejecting the need to base liability on warranty theory, Justice Traynor asserted that "[t]he remedies of injured consumers ought not to be made to depend upon the intricacies of the law of sales."[24] Rather, a plaintiff need only establish that "he was injured while using [the product] in a way it was intended to be used as a result of a defect in design and manufacture of which the plaintiff was not aware that made the [product] unsafe for its intended use."[25]

Instead of tinkering with established commercial law and statutory contractual theories of implied warranties, Justice Traynor threw the contractual baggage overboard. If the product was defective and a proximate cause of injury to the consumer, the manufacturer and merchant who distributed the goods would be held liable for personal and property injuries.[26]

The *Greenman* decision's logic appeared compelling and was followed two years later by the final published draft of section 402A of the Restatement (Second) of Torts.[27] The Restatement endorsed the *Greenman* "strict liability" concept with some modification in language.[28] The strict liability concept in products liability became immensely popular and was adopted with remarkable speed in a majority of the

21. *See* W. PROSSER, *supra* note 2, at 655-56.

22. In many jurisdictions, the legislature adopted amendments to its commercial code which reflected some or all of the liberalization imposed in *Henningsen. See, e.g.*, CAL. CIV. CODE §§ 1790 - 1797.5 (West 1973 & Supp. 1983); ME. REV. STAT. ANN. tit. 11, § 1 - 316(5); *see also* U.C.C. §§ 2-302, 2-316, 2-719 (1977).

23. 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963).

24. *Id.* at 64, 377 P.2d at 901, 27 Cal. Rptr. at 701 (quoting Ketterer v. Armour & Co., 200 F. 322, 323 (S.D.N.Y. 1912)).

25. *Id.* at 64, 377 P.2d at 901, 27 Cal. Rptr. at 701.

26. *Id.*

27. *See* W. PROSSER, J. WADE & V. SCHWARTZ, CASES AND MATERIALS ON TORTS 761 (7th ed. 1982).

28. *See* RESTATEMENT 2d § 402A, quoted *supra* note 2; *see also supra* text accompanying notes 24-26.

states.[29]

Efforts to Articulate the Concept of Design Defect

The Restatement: Unreasonably Dangerous

The appealing simplicity of the *Greenman* formula for holding sellers of goods liable for their defective products has proved deceptive. Although the requirement of proving negligent behavior by manufacturers or sellers has been eliminated, the courts must nevertheless determine what is in fact a *defective* product.

The term "manufacturing defect," though not undebated,[30] has not posed significant conceptual difficulties. A manufacturing defect is readily identifiable because the product differs from the manufacturer's intended result.[31] It is predictable that even in the absence of negligence, some random products will have an unintended manufacturing defect. Reasonable precautions in the manufacturing and distribution process allow for reasonable risks that a random item will be flawed. The elimination of all risks in the manufacturing process is economically unfeasible if the product is to be made available. Strict liability for manufacturing defects insures that the costs of the predictable risks of manufacturing defects will be incorporated in the cost of the product. Since such risks are foreseeable, the risks can be rationally insured. Compensation can be distributed to those injured by receiving a product different from what was intended to be sold.[32]

Determining what in fact is a design defect has proved much more elusive and controversial.[33] The drafters of the Restatement's section 402A attempted to clarify the *Greenman* concept of a defective product.

29. *See* West v. Caterpillar Tractor Co., 336 So.2d 80, 87 n.1 (Fla. 1976) (listing 33 states in addition to Florida that have adopted or approved the doctrine of strict products liability); *see also* Annot., 13 A.L.R. 3d 1057 § 4 (1967); PROD. LIAB. REP. (CCH) §§ 4060-4070.

30. *See* Cronin v. J.B.E. Olson Corp., 8 Cal. 3d 121, 134, 501 P.2d 1153, 1163, 104 Cal. Rptr. 433, 443 (1972), suggesting there may be difficulty in distinguishing what is a manufacturing or design defect: "It is difficult to prove that a product ultimately caused injury because a widget was poorly welded—a defect in manufacture—rather than because it was made of inexpensive metal difficult to weld—a defect in design." The California Supreme Court later rejected this concern and established separate tests for design and manufacturing defects. *See* Barker v. Lull Eng'g Co., 20 Cal. 3d 413, 429, 573 P.2d 443, 554, 143 Cal. Rptr. 225, 236 (1978). *See also infra* text accompanying notes 54-57.

31. *See* Wade, *supra* note 5, at 551-52.

32. *But see* Posner, *Strict Liability: A Comment*, 2 J. LEGAL STUD. 205 (1973). *See infra* text accompanying notes 116-19.

33. *See* Birnbaum, *supra* note 5; Fischer, *Product Liability—The Meaning of Defect*, 39 MO. L. REV. 339 (1974); Henderson, *supra* note 5; Schwartz, *Understanding Products Liability*, 67 CALIF. L. REV. 435 (1979); Traynor, *supra* note 5; Wade, *supra* note 5.

Liability is imposed against the sellers of "defective products unreasonably dangerous."[34] The term "unreasonably dangerous" is defined as "dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to its characteristics."[35] The addition of the "unreasonably dangerous" phrase is intended to exclude from the concept of "defectiveness" products such as whiskey which cannot be made entirely safe for consumption.[36]

Although the Restatement's language is accepted by many states adopting strict products liability, it has not eliminated controversy over what is encompassed by the concept of a defectively designed product.[37] Some courts have sought to clarify the Restatement by attempting to define what product dangers are beyond the expectations of ordinary consumers.[38] Although the Restatement language suggests an objective standard, some courts applying the Restatement have looked at the subjective knowledge and expectations of the particular plaintiff.[39] Because the ordinary consumer expects some reasonable risks from products, other courts utilizing the Restatement standard ask the jury to balance the risks versus benefits of a product.[40] This has raised the question of whether the ordinary consumer would balance risks versus benefits any differently than the reasonable manufacturer, and also prompts the question whether the Restatement standard is signifi-

34. RESTATEMENT 2d, *supra* note 2, § 402A(1).

35. *Id.* comment i.

36. *Id.; see* Prosser, *Strict Liability to the Consumer in California*, 18 HASTINGS L.J. 9, 23 (1966).

37. *See* Birnbaum, *supra* note 5, at 601.

38. *See, e.g.*, Estate of Ryder v. Kelly-Springfield Tire Co., 91 Wash. 2d 111, 115-16 & n.2, 587 P.2d 160, 163 & n.2 (1978); Vincer v. Esther Williams All Aluminum Swimming Pool Co., 69 Wis.2d 326, 332, 230 N.W.2d 794, 798-99 (1967).

39. *See, e.g.*, Pridgett v. Jackson Iron & Metal Co., 253 So. 2d 837 (Miss. 1971); Garrett v. Nissen Corp., 84 N.M. 16, 498 P.2d 1359 (1972); Young v. Tide Craft, Inc., 270 S.C. 453, 472, 242 S.E.2d 671, 680 (1978).

40. *See, e.g.*, Aller v. Rodgers Mach. Mfg. Co., 268 N.W. 2d 830 (Iowa 1978); Estate of Ryder v. Kelly-Springfield Tire Co., 91 Wash. 2d 111, 587 P.2d 160 (1978); Seattle-First Nat'l Bank v. Tabert, 86 Wash. 2d 145, 542 P.2d 774 (1975).

The Texas Supreme Court, in Turner v. General Motors Corp., 584 S.W.2d 844 (Tex. 1979), endorsed a risk-utility balancing test without requiring that jurors be asked what ordinary consumers would expect. The court was "persuaded to this conclusion by the inconclusiveness of the idea that jurors would know what ordinary consumers would expect in the consumption or use of a product, or that jurors would or could apply any standard or test outside that of their own experience and expectations." *Id.* at 851. Prior to *Turner* the Texas Supreme Court had endorsed section 402A. *See* McKisson v. Sales Affiliates, Inc., 416 S.W.2d 787 (Tex. 1967).

cantly different from an ordinary negligence standard.[41] Other courts have interpreted the Restatement standard to impose liability when the "seller would be negligent if he sold the article *knowing of the risks involved*,"[42] even when the manufacturer would not be at fault for failing to predict those risks.[43]

Consequently, although the Restatement standard has "swept the country,"[44] the difficulty of achieving consensus as to what is meant by a design defect persists. This has prompted some jurisdictions to reject section 402A and articulate alternative standards.

California, New Jersey, and Pennsylvania have developed particularly fascinating responses to the Restatement. Viewed together, they underscore the flaws in current design strict products liability theory and suggest that the distinct concept of strict products liability, as contrasted with traditional strict liability and negligence, may be no more than a temporary theoretical interlude.

California: An Elusive Standard

In *Cronin v. J.B.E. Olson Corp.*,[45] the California Supreme Court rejected the Restatement position that strict liability for a product defect requires finding the product "unreasonably dangerous." *Cronin* dealt with a manufacturing defect rather than a design defect.[46] The court concluded that the Restatement's requirement that a defect be "unreasonably dangerous" imposed on the plaintiff the burden of proving an additional "element which rings of negligence."[47]

41. *See* Birnbaum, *supra* note 5, at 648-49.

42. Phillips v. Kimwood Machine Co., 269 Or. 485, 492, 525 P.2d 1033, 1036 (1974) (emphasis in original).

43. *See, e.g., id.*; Wilson v. Piper Aircraft Corp., 282 Or. 61, 577 P.2d 1322 (1978), *reh'g denied with opinion* 282 Or. 411, 579 P.2d 1287 (1978). The New Jersey Supreme Court, in Cepeda v. Cumberland Eng'g Co., 76 N.J. 152, 386 A.2d 816 (1978), endorsed this interpretation of section 402A. Subsequently, the New Jersey Supreme Court, while continuing to endorse a hindsight approach, rejected adherence to section 402A. Suter v. San Angelo Foundry & Mach. Co., 81 N.J. 150, 406 A.2d 140 (1979). *See infra* notes 75-90 & accompanying text. The hindsight approach has been endorsed by Deans Wade and Keeton. *See* Wade, *On the Nature of Strict Tort Liability for Products*, 44 MISS. L.J. 825, 834-35 (1973); Keeton, *Manufacturer's Liability: The Meaning of "Defect" in the Manufacture and Design of Products*, 20 SYRACUSE L. REV. 559, 568 (1969).

44. W. PROSSER, *supra* note 2, at 655-56.

45. 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972).

46. The "unreasonably dangerous" modifier would seem particularly significant in this context, because it could be argued that a production error was not "unreasonably dangerous" even if in a particular instance the defect caused injury. *See* Barker v. Lull Eng'g Co., 20 Cal. 3d 413, 424-25, 573 P.2d 443, 450-451, 143 Cal. Rptr. 225, 232-33 (1978).

47. *Id.* at 132, 501 P.2d at 1162, 104 Cal. Rptr. at 442.

The court in *Cronin* also reasoned that by defining "unreasonably dangerous" in terms of ordinary consumer expectations, liability under the Restatement would be eliminated when obvious hazards or specific warnings notified the consumer of the product's dangers.[48] Industry-wide laxity in product safety development and implementation could also serve to lower consumer expectations.[49] The Restatement standard appears to impose on manufacturers and sellers of products notice requirements derived from the implied warranty tradition of products liability, but arguably goes no further.

The California court has also expressed dissatisfaction with the ambiguity of the phrase "unreasonably dangerous," which is potentially misleading to juries. Arguably, an "unreasonably dangerous defect" would suggest to some jurors an intent to limit liability to only abnormally dangerous or ultrahazardous defects,[50] although such an interpretation was presumably not intended by the drafters of the Restatement.[51]

In *Cronin*, the California Supreme Court rejected section 402A, but did not offer an alternative definition of "defectiveness." Six years later, in *Barker v. Lull Engineering Co.*,[52] the court attempted to do so. While *Barker* clearly purports to define a design defect, three footnotes reserving decision on ostensibly peripheral issues leave undecided whether strict liability for product design exists in California in anything but name.[53]

Barker adopted two alternative tests to determine product design defects. The first test requires that "the product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner."[54] The test is essentially the Restatement's, which is itself a contemporary version of implied warranty the-

48. *Id.; see* Twerski, *Old Wine in a New Flask—Restructuring Assumption of Risk in the Products Liability Area*, 60 IOWA L. REV. 1 (1974); Marschall, *An Obvious Wrong Does not Make a Right: Manufacturers' Liability for Patently Dangerous Products*, 48 N.Y.U. L. REV. 1065 (1973).

49. *See* Barker v. Lull Eng'g Co., 20 Cal. 3d 413, 425, 573 P.2d 443, 451, 143 Cal. Rptr. 225, 233 (1978).

50. *Id.* at 246 n.8, 573 P.2d at 452 n.8, 143 Cal. Rptr. at 234 n.8. *See* Prosser, *supra* note 36, at 23; Wade, *supra* note 43 at 832.

51. *See* RESTATEMENT 2d, *supra* note 2, § 402A comment i.

52. 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978). The opinion was unanimous.

53. *See infra* notes 64, 67, 105 & accompanying text. *See* Schwartz, *supra* note 33, at 482-93.

54. 20 Cal. 3d at 435, 573 P.2d at 457-58, 143 Cal. Rptr. at 239-40.

ory and suffers from the limitations noted by the court in *Cronin*.[55] *Barker* acknowledges these limitations, but finds the standard appropriate when consumer expectations have not been met.[56]

The alternative *Barker* standard finds a product design defective if the plaintiff proves that "the product's design proximately caused his injury and the defendant fails to prove, in light of the relevant factors . . . that on balance the benefits of the challenged design outweigh the risk of danger inherent in such design."[57]

The court in *Barker* was adamant that this second alternative does not require the jury to find that the manufacturer was negligent in designing the product.[58] Instead, the court emphasized, the "jury's focus is properly directed to the condition of the product itself, and not to the reasonableness of the manufacturer's conduct."[59] Nevertheless, in weighing the benefits and risks associated with a product it is difficult to appreciate any significant difference between a focus on the design of the product and a focus on the act of designing that product.[60] Indeed, efforts to make such a distinction have led some commentators to suggest that design strict products liability is little more than negligence and should be abandoned.[61]

There is, however, a potentially significant difference between negligence and strict liability as articulated by *Barker*'s second prong. Although the phrase was not included in the definition of "defect" in *Barker*, the opinion clearly states twice that the benefits versus the risks of a product design should be evaluated on the basis of "hindsight."[62] Thus, although a reasonable manufacturer would not have appreciated the defect in design at the time of manufacture and distribution, liability can still be imposed if, in hindsight, the risks of the design are perceived as outweighing its benefits.[63]

Hindsight is especially advantageous to the plaintiff if he or she is

55. *See supra* notes 48-49 & accompanying text.

56. 20 Cal. 3d at 425 n.7, 573 P.2d at 451 n.7, 143 Cal. Rptr. at 233 n.7.

57. *Id.* at 435, 573 P.2d at 457-58, 143 Cal. Rptr. at 239-40.

58. *Id.* at 435, 573 P.2d at 457, 143 Cal. Rptr. at 239.

59. *Id.*

60. In either case the risk of the product's design would be balanced against its benefits in determining whether the product is defective or the designer is negligent. This balancing is a classic element of negligence. *See* W. PROSSER, *supra* note 2, at 145-49.

61. *E.g.*, Birnbaum, *supra* note 5, at 648-49. The Model Uniform Product Liability Act, *reprinted in* 44 Fed. Reg. 62,714 (1979), adopts a negligence standard to determine whether a product design is defective. *See* Schwartz, *The Uniform Product Liability Act—A Brief Overview*, 33 VAND. L. REV. 579 (1980).

62. 20 Cal. 3d at 430, 434, 573 P.2d at 454, 457, 143 Cal. Rptr. at 236, 239.

63. *Id.*

free to fault the manufacturer for a design which, in the light of subsequent technological advances, no longer constitutes a reasonable design at the time of trial. The advancing "state of the art" might make intolerably dangerous what five years earlier might have constituted a reasonable risk in a product's design. Yet it is unknown whether a plaintiff may apply hindsight in such a situation because *Barker* expressly reserved decision on whether "state of the art" should constitute a defense, precluding strict products liability if the design reflected the best state of the art at the time of production.[64] "Mechanical feasibility" of a safer design, as opposed to state of the art, is enunciated in the text as but one factor to consider in determining whether there is a design defect.[65]

Hindsight would also appear significant when a product poses a hazard which a reasonable manufacturer should not have necessarily discovered at the time the product was sold.[66] At the very least the product in "hindsight" might be viewed as "defective" because the manufacturer failed to provide a warning concerning such hazards. Yet *Barker*, in another footnote, left undecided the question of how strict products liability applies to products that are dangerous because they lack adequate warnings or directions.[67] A prior appellate decision in California[68] declined to apply strict products liability based on lack of warning in a defective drug case, upholding a jury verdict finding no negligence on the part of the pharmaceutical manufacturer because the injury was unforeseeable.[69]

In light of these two potential exceptions, very little, if anything, may be left of the benefits of hindsight to the plaintiff in California.[70]

64. 20 Cal. 3d at 422 n.4, 573 P.2d at 449 n.4, 143 Cal. Rptr. at 231 n.4.

65. *Id.* at 431, 573 P.2d at 455, 143 Cal. Rptr. at 237. The opinion does not specify whether "mechanical feasibility," even as but one factor, is evaluated at the time of manufacturing or at the time of trial.

66. An unforeseen side effect of a pharmaceutical product is a classic example of where a warning advising consumers of the risk would be appropriate if the manufacturer knew of the danger. The product would then be utilized when therapeutic considerations justified the risk or the patient was known not to be susceptible to the particular risk.

67. 20 Cal. 3d at 420 n.1, 573 P.2d at 447 n.1, 143 Cal. Rptr. at 229 n.1.

68. Christofferson v. Kaiser Found. Hospitals, 15 Cal. App. 3d 75, 92 Cal. Rptr. 825 (1971).

69. *Id.* at 79-80, 92 Cal. Rptr. at 827. The California Supreme Court may address this issue in Finn v. G.D. Searle & Co. (2d Civ. 57164, unpublished). A decision from the Court is pending. *See* 81 CALIF. TORT RPTR. 82 (1981).

70. Arguably, there still may be some distinction between the results of a risk-balancing based on foresight and hindsight. It may not, for example, be negligent to have failed to include an additional safety device until accidents indicated that the cost of the additional device would significantly reduce injuries and justify the added cost. Such subtle distinc-

While hindsight without a "state of the art" or "warning" exception insures that strict design products liability is different from negligence, the two *Barker* footnotes leave open the possibility that "hindsight" would be so eviscerated as to destroy the distinction and effectively make the second prong of the *Barker* test a "product focused" but nevertheless negligence test.

The matter-of-fact manner in which "hindsight" is provided for in *Barker*, with no policy analysis, leaves doubt as to what the *Barker* court meant to accomplish through inclusion of the hindsight language.[71] One might argue that imposing hindsight without a "state of the art" exception provides additional compensation to the injured and encourages the prompt improvement of products to limit the risks of future liability.[72] Yet "hindsight" analysis could discourage new state of the art advances as well. Obsolescence through technical improvements could retroactively make the earlier products not merely obsolete but also "defective." Furthermore, compensation would appear to be random with some plaintiffs winning major recoveries and others being denied recovery as a result of litigating too early, before the state of the art advances sufficiently to make the product defective by hindsight. From a compensation perspective, it would also seem arbitrary to compensate, for example, victims of obsolete drug therapy while not compensating the victims of obsolete medical procedures. Finally, hindsight would appear to offend traditional notions of fairness. Liability would be imposed haphazardly and without a good mechanism to allow manufacturers to calculate potential risks.

Barker, despite its protests to the contrary,[73] leaves unanswered whether strict design products liability as a distinct theory of liability even exists as a practical matter in California, and offers no compelling policy reasons why it should. What may in fact be left is a mature implied warranty standard in prong one and a sophisticated design negligence standard with an unusually aggressive variant of res ipsa loquitur in prong two.[74] *Barker*'s second prong does shift the burden to

tions, however, are muted by the fact that the jury is measuring reasonable foresight from a hindsight perspective.

71. *See* Henderson, *Coping with the Time Dimension in Products Liability*, 69 CALIF. L. REV. 919 (1981).

72. *See* Beshada v. Johns-Manville Prod. Corp., 90 N.J. 191, 207, 447 A.2d 539, 547-48. *See also infra* text accompanying note 82.

73. 20 Cal. 3d at 434, 573 P.2d at 457, 143 Cal. Rptr. at 239.

74. *See supra* notes 12-13 & accompanying text. While ordinary res ipsa loquitur permits the inference of negligence, *Barker* requires the defendant to prove the absence of a defect (not necessarily the result of negligence) when the product caused the injury. *See* Schwartz, *supra* note 33, at 467.

the defendant to prove a reasonable design when the plaintiff proves that the product is a proximate cause of the injury, even where negligence would normally not be inferred. This has practical significance in litigation but hardly justifies the label of strict products liability. The *Barker* opinion speaks in terms of strict products liability, but the alternative tests, in the absence of hindsight, look very traditional.

New Jersey: Unmitigated Hindsight

The New Jersey Supreme Court in *Beshada v. Johns-Manville Products Corp.*[75] expressly endorsed the concept of hindsight in design defect cases. The determination of whether a product "is reasonably fit, suitable and safe" depends upon a traditional negligence analysis which utilizes a "risk-utility" equation.[76] The only difference between negligence and strict liability in the context of alleged product design defects is that all knowledge concerning the dangers of the products that can be proven at trial is considered in determining whether the product is defective. The defendant's lack of knowledge of the dangers is irrelevant.[77]

While the *Barker* decision reserved the issue of whether strict products liability applies to failure-to-warn cases, the New Jersey Supreme Court concluded that the same principles apply in warning cases as in any alleged design defect case. The court must determine whether a product is safe by balancing its utility against its potential risk and by asking whether the "risk [has] been reduced to the greatest extent possible consistent with the product's utility."[78] Since the cost of adding a warning is normally negligible and would rarely diminish utility, the failure to provide an appropriate warning would constitute a design defect.[79]

The court in *Beshada* rejected the argument that "state of the art" should provide a defense for failure to warn. The court reasoned that in strict products liability it is not only irrelevant whether a reasonable manufacturer should have known about a particular risk, but it is also irrelevant that the risk was undiscoverable given the state of scientific knowledge at that time.[80]

75. 90 N.J. 191, 447 A.2d 539 (1982).
76. *Id.* at 199, 447 A.2d at 544.
77. *Id.* at 200, 447 A.2d at 544.
78. *Id.* at 200, 447 A.2d at 545 (quoting Freund v. Cellofilm Properties, Inc., 87 N.J. 229, 238 n.1, 432 A.2d 925, 930 n.1 (1981)).
79. *Id.* at 202, 447 A.2d at 545.
80. *Id.* at 202-05, 447 A.2d at 545-49.

Since *Beshada* is a failure-to-warn case, the New Jersey Supreme Court did not have to decide whether "state of the art" could be a defense for a product which in hindsight is defective because it lacks technological improvements developed after the product's manufacture and sale. While the court reserved decision on the question, it noted that "[t]here are strong conceptual similarities between warning and safety device cases" and that arguments against permitting a "state of the art" defense may be equally applicable.[81]

The *Beshada* court rejected arguments that its decision would result in unacceptably high prices, contending that its decision would advance the policies underlying strict liability, primarily risk-spreading and accident-avoidance.[82] The court concluded that the price of a product should reflect the cost of injuries caused by the product, including the cost of insuring against the possibility that the product will be defective.[83] In addition, the court reasoned that spreading the cost of injuries among all those who produce and distribute the product is better than imposing the cost solely on "innocent victims" who suffer injury from the product.[84] Finally, the court concluded that imposing the cost of the failure to discover hazards on manufacturers creates an incentive to advance safety research and ultimately avoid accidents.

The New Jersey decision articulated a distinct approach to strict products liability by expressly adopting a hindsight approach. The court recognized the difficulties in endorsing hindsight and then undercutting the concept by allowing a "state of the art" exception.[85] The concept of scientific knowability was deemed not a relevant issue for juries to focus on.[86] Both the "state of the art" exception and the concept of scientific knowability focus on the culpability of the manufacturer. The *Beshada* court recognized that in products liability cases the culpability of the manufacturer is not at issue.

Beshada, unlike *Barker*, clearly endorses a concept of strict products liability based on unmitigated hindsight. Yet the policy arguments offered on behalf of "hindsight" products liability are inadequate. If the price of a product should reflect the costs of injuries resulting from it, it appears arbitrary to compensate those injured as a result of risks that are in retrospect unreasonable, but not those injured from foresee-

81. *Id.* at 204 n.6, 447 A.2d at 546 n.6.
82. *See id.* at 205-07, 447 A.2d at 547-48.
83. *Id.* at 205, 447 A.2d at 547.
84. *Id.* at 206, 447 A.2d at 547.
85. *Id.* at 202-05, 447 A.2d at 545-49.
86. *Id.* at 208, 447 A.2d at 547.

able, though not unreasonable, risks recognized at the time of manufacture. Indeed, it is the foreseeable risks of harm that are most insurable and should most appropriately be reflected in the cost of doing business by those who profit from the product.

The *Beshada* court cited a discussion of traditional strict liability by Dean Prosser in support of risk-spreading through hindsight liability.[87] Yet Prosser, in that discussion, emphasized that strict liability is imposed for risks that are foreseeable, although not unreasonable.[88] The victims of such risks are innocent compared with those who benefit from imposing risks even if the risks are reasonable:

> [I]t might be quite as easy to say that one who conducts . . . operations which may injure his neighbor is "at fault" in conducting them at all, and is privileged to do so only in so far as he insures that no harm shall result, as to say that he is not at fault, but is liable nevertheless. If he is not "at fault" because the social desirability . . . justifies the risk, his conduct is still so far socially questionable that it does not justify immunity. The basis of his liability in either case is the creation of an undue risk of harm to other members of the community.[89]

It must also be emphasized that traditional strict liability imposes liability only for foreseeable (albeit reasonable) risks. Proximate cause analysis, which tends to be more rigorous in the context of strict liability than for liability based on negligence, precludes responsibility for unexpected types of harms.[90]

Hindsight analysis removes any element of culpability. Liability may be imposed even where no risk of harm was forseeable at the time of manufacture. Indeed, hindsight analysis eliminates some incentive to discover such risks. Once discovered, the knowledge of the risk may be used against the manufacturer to show that the product is defective. Once the causal relationship between product and risk is established, massive liability is imposed. In addition, compensation is afforded to some, but not all, victims. Incentives for improvements are at best diffused rather than directed at minimizing foreseeable risks. While traditional strict liability allows statistical predictions of potential liability based on foreseeable risks, hindsight does not. Consequently, it is extremely difficult to include in the product's price the cost of future liability.

87. *Id.* at 205, 447 A.2d at 547.
88. *See* W. PROSSER, *supra* note 2, at 495.
89. *Id.*.
90. *Id.* at 517.

Pennsylvania's *Azzarello* Decision: The Court Determines Policy

In *Azzarello v. Black Brothers Co.*,[91] the Pennsylvania Supreme Court stated that even if the Restatement's phrase "unreasonably dangerous" served "a useful purpose in predicting liability in this area, it does not follow that this language should be used in framing the issues for the jury's consideration."[92] Rather, the court characterized the Restatement phrases "defective condition" and "unreasonably dangerous" as "terms of art to be invoked when *strict liability* is appropriate."[93] The determination of when strict liability is appropriate is described by the Pennsylvania court as a question of law, the resolution of which "depends on social policy"[94] and is a judicial rather than a jury function.[95] The jury simply determines whether the facts are as the complaint alleges.[96]

Azzarello has been heavily criticized for imposing an unduly harsh standard for liability.[97] In defective design cases, the court determined that strict liability should be imposed whenever the jury finds "the product left the supplier's control lacking any element necessary to make it safe for its intended use."[98] *Azzarello*, however, leaves undefined what constitutes a "safe" product. While any product can be made "safer," *Azzarello* doesn't necessarily say that a product is unsafe because it lacks any element that can make it safer.[99] Such an interpretation would result in strict liability for virtually all products. Rather, *Azzarello* says that a product must be "safe," and leaves uncertain what elements are necessary to make it safe.

Azzarello is also criticized for unjustifiably giving to the judge functions more appropriate for the jury.[100] Traditionally, however, strict liability has been imposed by the court upon those engaged in activities characterized as "ultrahazardous" or "abnormally dangerous."[101] Indeed, the revised Restatement (Second) of Torts recognizes that a social policy analysis rather than a fixed rule should guide courts

91. 480 Pa. 547, 391 A.2d 1020 (1978).
92. *Id.* at 558, 391 A.2d at 1026.
93. *Id.* (emphasis in original).
94. *Id.*
95. *Id.*
96. *Id.*.
97. *See* Birnbaum, *supra* note 5, at 636-37.
98. 480 Pa. at 559, 391 A.2d at 1027.
99. For the argument that *Azzarello* requires a product to be completely safe, see Birnbaum, *supra* note 5, at 637; Henderson, *Products Liability*, 2 CORP. L. REV. 246, 247-48 (1979).
100. *See* Birnbaum, *supra* note 5, at 636-39.
101. *See* W. PROSSER, *supra* note 2, at 505-16.

in imposing strict liability.[102] Such a policy approach to questions of strict liability for particular products is not conceptually different from a policy approach to questions of strict liability for "abnormally dangerous" activities. *Azzarello* admittedly is not suggesting the Restatement standard should apply to products as well as to activities, but it should not be faulted for proposing an analogous procedure in the context of products liability.

While the *Azzarello* court asserted that judges should determine when strict liability should be imposed for product design defects, it failed to clearly articulate a meaningful standard for determining when a design is defective. As a result, the jury may be left to determine when a product is "safe for its intended use." *Azzarello* stated that the court and not the jury should, on the basis of social policy, determine when strict liability is applicable. While quite properly emphasizing the need for policy and the court's role in defining it, the *Azzarello* opinion ultimately fails to articulate it.

The Case for Traditional Strict Liability

Since *Greenman v. Yuba Power Products, Inc.*[103] introduced the concept of strict liability for product defects, courts have sought to define what standards would lead to liability. The struggle has in part reflected a tension between liability derived from implied warranty and negligence theories.

The Restatement reflects this mixed tradition by defining the negligence concept of an "unreasonably dangerous" defect in terms derived from warranty theory of the ordinary consumer's expectations. The California Supreme Court in *Barker*, while rejecting the Restatement, offered two tests which may constitute little more than alternative bases of liability: warranty in one test and negligence in the other. The New Jersey Supreme Court has also mixed the language of warranty and negligence: "[f]itness for intended and foreseeable use" is required in the terminology of implied warranty, but defined by a risk-

102. RESTATEMENT 2d, *supra* note 2, §§ 519-520. Section 520 lists the criteria for determining what constitutes an abnormally dangerous activity: "In determining whether an activity is abnormally dangerous, the following factors are to be considered: (a) existence of a high degree of risk of some harm to the person, land or chattels of others; (b) likelihood that the harm that results from it will be great; (c) inability to eliminate the risk by the exercise of reasonable care; (d) extent to which the activity is not a matter of common usage; (e) inappropriateness of the activity to the place where it is carried on; and (f) extent to which its value to the community is outweighed by its dangerous attributes."

103. 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963).

utility equation derived from negligence.[104]

Whatever terminology is used, the same problem faces the courts in the context of strict liability for design defects. So long as strict liability depends on determining that the product is defective, an adequate measurement for ascertaining what is a design defect must be formulated. This has proved a persistently elusive goal. While the Restatement has won many adherents, the task of defining defect in terms of ordinary consumer expectations is sufficiently ambiguous to evade the issue.

The ambiguity of the Restatement standard has generated a variety of responses. Some, like *Azzarello*, attempt to formulate a theory of liability while maintaining marginal allegiance to section 402A. Others, like *Barker*, expressly reject the Restatement's terminology. Yet *Barker* also begs the question. Is defectiveness simply a product design that constitutes an unreasonable risk? If so, it would appear that strict product liability for design defects is nothing more than negligence. If unmitigated hindsight is imposed, as in *Beshada*, a test significantly different than negligence is indeed formulated. If, as *Barker* leaves undecided, hindsight is limited by a "state of the art" defense, or if strict liability theory is entirely excluded from failure-to-warn cases, the difference between hindsight analysis and negligence analysis begins to evaporate.

Unmitigated hindsight as articulated and defined by *Beshada* fails to offer a persuasive policy rationale. Hindsight may be a neat way to define defects, the enigma facing courts since *Greenman*, but defining so-called design defects is not the ultimate issue.

The real issue is, as *Azzarello* points out, a question of formulating a policy governing when those injured by products should be compensated by those responsible for putting the products in the stream of commerce. The *Beshada* hindsight approach, as argued above, is essentially arbitrary in discriminating among the injured it compensates. It fails to give direct incentives for accident avoidance, since liability can be imposed for risks that are not even recognized, much less avoided. The unforeseeability of the risks makes economic planning, insurability, and the rational spreading of accident costs among all consumers extremely difficult.

Traditional strict liability does not, however, pose these difficulties. It is for this reason that the possibility of liability devoid of the concept of defect becomes attractive. A footnote in the *Barker* opinion

104. 90 N.J. at 199-200, 447 A.2d at 544.

noted that the court "[i]n the instant case [has] no occasion to determine whether a product which entails a substantial risk of harm may be found defective even if no safer alternative design is feasible."[105] The court quoted Justice Traynor's earlier suggestion that "liability might be imposed as to products whose norm is danger."[106]

If hindsight, unmitigated by state-of-the-art and warning exceptions, appears to impose arbitrary and unfair liability, Justice Traynor's suggestion might at first blush appear even more arbitrary. *Barker* suggests the possibility of imposing absolute liability for injury proximately caused by a product without the necessity of establishing that the product is defective. It has been observed that the footnote may suggest a traditional strict liability analysis imposing liability where a product is viewed as "abnormally dangerous" or "ultrahazardous."[107] While its fairness has been questioned,[108] the imposition of traditional strict liability against the manufacturers of abnormally dangerous products is not as radical as it may first appear, and in fact is far more equitable than a design strict product liability formulation based on hindsight.

Traditional strict liability is not absolute liability. Liability is limited to activities where the defendant should recognize that serious risks remain despite the exercise of reasonable care.[109] The social utility of the activity justifies the unavoidable risks that are imposed on others by the activity, thus precluding a finding of negligence.[110] Although the risk is reasonable, it is also calculated, and the resulting injury is in a

105. 20 Cal. 3d at 430 n.10, 573 P.2d at 455 n.10, 145 Cal. Rptr. at 237 n.10. The *Azzarello* opinion contains an analogous footnote noting that "[u]nder the facts of this appeal we need not consider when the risk of loss is placed upon the supplier in cases where an unavoidably unsafe product is involved. . . ." 480 Pa. at 559 n.11, 391 A.2d at 1027 n.11.

106. *Id.* (quoting Jiminez v. Sears Roebuck & Co., 4 Cal. 3d 379, 383, 482 P.2d 681, 684, 93 Cal. Rptr. 769, 772 (1971)).

107. Schwartz, *supra* note 33, at 490.

108. *Id.* at 491. Courts have rejected, as misplaced, without serious policy consideration, occasional efforts to apply the abnormally dangerous activity doctrine in the products liability context. *See* Jones v. Hittle Serv., Inc., 219 Kan. 627, 549 P.2d 1383 (1976); First Nat'l Bank v. Nor-American Agricultural Prod., Inc., 88 N.M. 74, 537 P.2d 682 (Ct. App. 1975). *See also* W. KEETON, D. OWEN & J. MONTGOMERY, PRODUCTS LIABILITY AND SAFETY: CASES AND MATERIALS 200-01 (1980). *But see* Chapman Chem. Co. v. Taylor, 215 Ark. 630, 222 S.W.2d 820 (1949), where traditional strict liability was arguably a factor in the majority's decision to impose liability. Oregon initially appeared to limit liability for "defective" products that were ultrahazardous, Wights v. Staff Jennings, Inc., 241 Or. 301, 405 P.2d 624 (1965), but later abandoned this requirement. Caven v. General Motors Corp. 280 Or. 455, 571 P.2d 1249 (1977).

109. *See* W. PROSSER, *supra* note 2, at 517.

110. *Id.* at 494-95.

sense statistically inevitable.[111] While the defendant is not to be faulted for engaging in the activity (since a "reasonable" person in like circumstances would also engage in the activity), it is not inappropriate to require the defendant to compensate those injured as a result of the activity. The defendant's enterprise benefits from the abnormally dangerous activity and should therefore pay the inevitable costs. "Hindsight" analysis, on the other hand, by definition does not take into account a reasonable person's contemporaneous scienter. While traditional strict liability can compel a defendant to pay for a particular foreseeable but reasonable risk, "hindsight" strict products liability can force a defendant to pay for an unforeseeable risk. This has implications not only in terms of "fairness" and culpability, but for economic planning and insurability as well.

It does not seem unreasonably burdensome to require an industry that benefits from the distribution of abnormally dangerous products to compensate those injured by their use. While users of such products are liable under strict liability, some may lack the financial ability to compensate the injured. Adding the manufacturer, who is often more financially stable than product users, to the circle of defendants subject to strict liability would help assure that insurance covering potential liability is procured. It also would encourage the manufacturer to distribute its product to responsible purchasers. While the actual "consumers" of the product have to a large extent assumed the risks, thereby at least reducing their potential for recovery, the foreseeable bystander would not be so precluded.[112]

An example can illustrate the argument. Dynamiting constitutes the classic situation in which traditional strict liability in the *Ryland v. Fletcher*[113] tradition would be imposed on those engaging in the activity. Despite prudent precautions, the use of dynamite imposes risks. Although the risks may be reasonable under the circumstances, they are nevertheless foreseeable. In the case of such abnormally dangerous activities, the cost of foreseeable injuries resulting from the blasting must be sustained by those engaging in the activity.

The supplier of the dynamite is not liable under current strict

111. *Id.* at 495.

112. Assumption of risk is an established defense to strict liability. *See id.* at 522-25. Consequently, those engaging in abnormally dangerous activity would in many instances assume the risks related to the products they are using and would be precluded from complete recovery, or enjoy only partial recovery in a jurisdiction where assumption of risk was merged into comparative fault. *See* Daly v. General Motor Corp., 20 Cal. 3d 725, 575 P.2d 1162, 144 Cal. Rptr. 380 (1978).

113. L.R. 3 H.L. 330 (1868).

products liability theory, unless the product is "defective," however defectiveness is defined. Even the most extreme interpretation of *Azzarello* would require a finding by the court that a "necessary" safety element was missing. Yet a strong case can be made that the supplier who sells dynamite should be responsible for insuring that those injured by such a dangerous product are compensated. The cost of the product should reflect the statistically foreseeable injuries resulting from risks (albeit reasonable risks) that are imposed by use of the product. Yet currently, in the absence of a defect, the supplier is excluded from the circle of liability. Accident avoidance would be advanced by encouraging suppliers to sell only to responsible users. Yet, under present negligence theory, it is unlikely that even a "negligent" sale would lead to liability.[114]

Furthermore, liability would only be imposed for foreseeable risks associated with the hazards that justified imposition of strict liability. These are the risks that can be predicted and properly insured. If dynamite was found in hindsight to cause cancer, traditional strict liability would not impose liability. A hindsight analysis on the other hand, as in *Beshada*, would impose liability to the benefit of those bringing suit at a time when the state of the art adequately documented the causation.

Traditional strict liability is limited by the defense of assumption of risk in the cases where the plaintiffs have voluntarily exposed themselves to the risk. In jurisdictions which incorporate assumption of risk into comparative fault, the limitation would be less extreme.[115] In addition, a criminal or grossly negligent use of the dynamite that was not foreseeable would probably constitute a superseding cause, precluding liability to the manufacturer.

In short, expanding traditional strict liability to particular products when social policy suggests that the cost of the product should include insurance for foreseeable risks is far less disruptive and radical than a hindsight approach. Culpability, foreseeability and predictable economic liability are still relevant. In hindsight theory culpability and foreseeability are abandoned.

Traditional strict liability clearly should be imposed on the manufacturers of products that are abnormally dangerous in all uses and applications. Examples of such products presumably would include very dangerous chemicals and pesticides, explosives, rockets, and cer-

114. *See* Sikora v. Wade, 135 N.J. Super. 62, 342 A.2d 580 (1975).

115. *See supra* note 112 & accompanying text.

tain radioactive materials.[116] By imposing the costs of accidents resulting from the use of such products on the manufacturer rather than entirely on the user, an incentive is created for the manufacturer to engage in research and development of a safer product. It is unlikely that liability for negligence alone would be sufficient incentive to prompt such research, for negligent failure to invent new and safer products is difficult to prove.[117]

Economic pressure on the manufacturer seems appropriate, since it is the manufacturers of such abnormally dangerous products that have access to information (which may at times constitute trade secrets) necessary for the efficient pursuit of a safer product.[118] Although users of such products are now liable under traditional strict liability concepts for injuries caused by activities involving the products, and thus may apply pressure for safer products to reduce their costs, this pressure is indirect. The manufacturer, which is in the best position to organize and direct safety research, is under present standards insulated from the direct economic pressure created by tort liability.

If the costs of foreseeable accidents were included in the price of an abnormally dangerous product, consumers of such a product would be forced to pay in advance for the foreseeable risk of accidents. This forced payment, included in the price of the product, would provide an incentive to users of the product to avoid imprudent risk-taking.[119] Compensation of victims of accidents caused by the use of the product would also be better insured, because the cost of such insurance would already have been paid to a party liable for such compensation. The more abnormally dangerous the risk imposed by the product, the less

116. This would apply to products which create abnormally dangerous activities regardless of location. Section 520(d) of RESTATEMENT 2d, *supra* note 2, lists "inappropriateness of the activity to the place where it is carried on" as one factor to consider. *See supra* note 102. But see Yukon Equip. Inc. v. Fireman's Fund Ins. Co., 585 P.2d 1206, 1211 (Alaska 1978), expressing criticism with considering location in any case: "The reasons for imposing absolute liability on those who have created a grave risk of harm to others by storing or using explosives are largely independent of considerations of locational appropriateness. We see no reason for making a distinction between the right of a homesteader to recover when his property has been damaged by a blast set off in a remote corner of the state, and the right to compensation of an urban resident whose home is destroyed by an explosion originating in a settled area. In each case, the loss is properly to be regarded as a cost of the business of storing or using explosives. Every incentive remains to conduct such activities in locations which are as safe as possible, because there the damages resulting from an accident will be kept to a minimum." *See infra* note 120.

117. Posner, *supra* note 32, at 209 n.9.

118. *See* Calabresi, *Optimal Deterrence and Accidents*, 84 YALE L.J. 656 (1975); Calabresi & Hirschoff, *Toward a Test for Strict Liability in Tort*, 81 YALE L.J. 1055 (1972).

119. Posner, *supra* note 32, at 210 n.12.

likely it is that a third-party victim will have calculated the risk in planning his or her own economic protection. Consequently, it becomes essential to force manufacturers to distribute the risk created by their products by passing on a small share of the burden to all users of the product.[120] This is especially important in situations where the risk is of liability for large damage awards, and the typical user of the product is not financially capable of paying such awards.

As a product becomes more common, the manufacturer has less of a monopoly on the technology and detailed knowledge of risks posed by the product's use. The competition to build a safer mousetrap, for example, and the incentive to do so, are more pervasive. The need to impose special incentives on the manufacturer, beyond liability for negligence, appears less intense. Similarly, the victims of such products can at least take account of these foreseeable risks in their economic and insurance planning.

Arguably, traditional strict liability should be extended to include other products, in addition to those identified with abnormally dangerous activities. But the issue of what activities and what associated products should be subject to traditional strict liability is part of the larger question of negligence versus strict liability. What is important in the context of design products liability is the recognition that the focus should be on determining when to impose real strict liability and upon which products, not upon trying to define design defect.

Conclusion

Since Justice Traynor's deceptively simple opinion in *Greenman v. Yuba Power Products, Inc.*,[121] courts have struggled with the concept of strict products liability. Most of the debate and confusion has focused

120. Location of the activity utilizing the product is irrelevant for purposes of determining manufacturer liability under this analysis. *See supra* note 116. Obviously, product users of abnormally dangerous products in remote locations would expect to be liable less often since fewer accidents affect third parties. This raises the question of whether the proposed rule of liability for manufacturers is unfair in so far as it passes on the costs of accidents occuring in urban areas to rural users.

The objection is not well taken. Alternate systems of selective marketing and pricing will come into effect. Since the traditional strict liability standard would not be applicable to products commonly used, by definition, liability under this approach would focus on the kind of products where this type of selective marketing is feasible. *See* RESTATEMENT 2d, *supra* note 102, § 520(d); *see also supra* note 102. Certainly responsible selective marketing of abnormally dangerous goods is to be encouraged. *But see* Montgomery & Owens, *Reflections on the Theory and Administration of Strict Tort Liability for Defective Products*, 27 S.C.L. REV. 803, 825-28 (1971).

121. 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963).

on design defects. The confusion stems from the courts' focus on the definition of "design defect" rather than on the policy reasons for requiring one who is responsible for putting a product into the stream of commerce to compensate those injured by that product. While a majority of state jurisdictions adhere to the concept of strict liability for "design defects," the standards used are often ambiguous and confusing. The Restatement's standard for section 402A is so vague that different courts ostensibly adhering to section 402A endorse a variety of conflicting theoretical approaches. "Design defect" may refer to nothing more than a product that has been negligently designed. If that is the case, much confusion to litigants and jurors would be avoided if negligence theory was used openly. Other jurisdictions have clearly endorsed liability based on "design defects" which are determined in the light of hindsight. Such an approach, while distinct from negligence, lacks a compelling policy rationale. Risk-spreading and insurability are made difficult by the lack of a system of liability based on foreseeable risks. Accident prevention is difficult because the risks are not foreseen. Safety research which could discover a causal relationship between the product and injuries may be discouraged by a recognition that hindsight can impose liability. The notion of liability based on some fair notion of culpability is absent.

Traditional strict liability is based on foreseeable reasonable risks. Risk-spreading and insurability are consequently feasible. Manufacturers and distributors, who benefit from the product's sales, should be subject to the same kind of liability as those who used the product. At present, traditional strict liability is limited to those engaging in "abnormally dangerous" activities, as defined by judges. It should, at the very least, also apply to those manufacturing and supplying dangerous products which substantially contribute to making such activities abnormally dangerous. Arguably, other product manufacturers and suppliers and other activities should be subject to strict liability. This is part of the larger question of determining when traditional strict liability should supplant negligence. The real confusion in products liability today is in failing to see the choices in terms of strict liability and negligence. Focusing on what is a so-called "design defect" obscures consideration of the policy choice between a reasoned system of strict liability and negligence.